

ABSTRACT

A linear electric machine includes a plurality of teeth spaced apart from each other, a yoke magnetically connected to the teeth, a plurality of coils mounted on the teeth and a movable core disposed opposite the teeth to reciprocate relative to the teeth along an axis of the movable core. The movable core has a plurality of permanent magnets at axially opposite ends thereof for supplying magnetic flux to the teeth, and a member for suppressing generation of a magnetic field disposed at an axial center of the movable core to magnetically separate the permanent magnets.